

## Enhancing the capacity of tax authorities and its impact on transfer pricing activities of FDI enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province of Vietnam

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ABSTRACT

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This study aims at discovering the relationship between the improvement in the capacity of tax authorities and its effect on the transfer pricing activities of foreign direct investment (FDI) enterprises in four provinces/cities of Vietnam: Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province. These are the first localities in Vietnam to establish the Division of Transfer Pricing Inspectorate in local Tax Department, under the direction of General Department of Taxation of Vietnam. The paper then proposes a further study on how the tax authorities of Vietnam should improve their capacities to make FDI enterprises more compliant with the transfer pricing regulations in Vietnam. The authors deploy the method of quantitative research through collecting self-administered closed format questionnaires from people in charge of finance/accounting/transfer pricing of FDI enterprises operating in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province of Vietnam. The findings suggest that there was a strong probability that the capacity of tax authorities would impact on the transfer pricing activities of FDI enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong of Vietnam. Vietnamese Government should enhance the capacity of the tax authorities; establish Transfer Pricing Inspectorate Division in all local Tax Departments of Vietnam. The authors believe that the improvement of tax officials' capacity especially those in charge of transfer pricing auditing will prevent the FDI enterprises from transfer pricing manipulation, hence these enterprises will be more compliant to transfer pricing regulations of Vietnam. The most significant value of the study is to support Vietnamese policymakers, especially those in the field of Finance (Ministry of Finance, General Department of Taxation) to improve their capacity when carrying out transfer pricing audit in FDI enterprises. The more transparent and aggressive the tax officials are, the better these enterprises follow the regulations.

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## 1. Introduction

Transfer pricing activities of enterprises and anti-transfer pricing abuse of the governments have been long the conflict between the two sides. As soon as the governments think of a new method to control transfer pricing, the enterprises find other ways to transfer pricing manipulation, because their final destination is always profit maximizing. In Vietnam, ever since the government put into a more competitive environment for FDI attraction with the Foreign Investment Law promulgated in 1987, the Government has been looking for foreign investment as a source of development for the country. Yet the FDI brings about many advantages and disadvantages at the same time.

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Among the disadvantages, in recent years, Vietnam has brought the issue of transfer pricing abuse as more and more FDI enterprises record of profit loss and enlarge their business at the same time. According to Ho (2017), in the 2016 Business Report of Vietnam, FDI enterprises seemed to lead in profit loss, the period of 2007-2015, about 40% of FDI enterprises report of profit loss. In another report, Le (2015) also found out a number of large FDI corporations, through auditing, found out to have tax evasion; for example Hualon Corporation Vietnam, reported of profit loss in a 20 year period, after audited, the tax authority found out that the Corporation had a big profit, and Tax Authority collected tax dues of more than 78 billion VN dongs. Or Metro Vietnam, reported of profit loss in 10 continuous years, being found out transfer pricing and the General Departments of Tax has collected the tax due of up to 507 billion VN dongs (Thang, 2015; Feinschreiber, 2004; Converse & Presser, 1986; Dao, 2014). Yet the context of enterprises continue to report of profit loss, but still broaden their business, under the view of economic specialist, is a signal of transfer mispricing or tax avoidance.

The first legal Circular relating to transfer pricing manipulation in Vietnam was Circular 89/1999/TT-BTC dated 16 July 1999 guiding the implementation of tax provisions applicable to various investment forms under the Law on Foreign Investment in Vietnam. After that, some other circulars were promulgated and under the context that many countries have urgently reviewed, supplemented, amended and updated those BEPS measures in their domestic laws, especially those measures to strengthen, improve the guidelines on transfer pricing, in 2017, Vietnam issued Decree no. 20/2017/ND-CP and Circular no 41/2017/TT-BTC on transfer pricing administration in order to improve the legal framework being able to comprehensively and fully cover tools to prevent and limit the transfer pricing for tax avoidance. Together with enhancing the legal regulations on transfer pricing, in 2016, upon the requirement of Vietnamese Ministry of Finance, Transfer Pricing Inspectorate Division has been established at Vietnamese General Department of Taxation and 4 local Tax Departments of Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province (out of 63 provinces and cities of Vietnam). This activity, as a pilot test, aims at giving a tool for these Tax Departments to coop with transfer pricing manipulation in FDI enterprises. The General Department of Taxation of Vietnam in general and local Tax Departments in particular need to apply suitable methods to deal with transfer pricing activities. However, recent solutions seem to be not comprehensively implemented, with low efficiency. As FDI enterprises continue to record losses and increase investment scale in the meantime, the government sometimes finds it powerless in this situation. The improvement in capacities for tax authorities to deal with transfer pricing in FDI enterprises in Vietnam has been recognized by many researchers including Nguyen (2018) and Duong (2018). The operation of Tax Authorities in Vietnam is currently not strong enough to coop with transfer pricing in FDI enterprises, when an enterprise is found out to abuse transfer pricing, often the company has reported of many continuous years of profit losses.

As transfer pricing activities in FDI enterprises in Vietnam is getting more complicated, the government records of many FDI enterprises reporting of profit loss (but still enlarge their business). Therefore, this paper is carried out to identify the factors whether enhancing the capacity of tax authorities can influence on transfer pricing activities of FDI enterprises in selected localities of Vietnam. The research question is carried to know how the capacity of tax authorities affect transfer pricing activities of FDI enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province. The need for understanding whether the capacity of tax authorities have impacts on transfer pricing activities of FDI enterprises is very important to continue enhancing the capacity for the tax authorities to deal with the transfer pricing abuse. Findings derive through this paper will provide a clearer picture of transfer pricing situation in Vietnam for better transfer pricing tax authorities in the future. In terms of academia, the study on the impact of the capacity of tax authorities on transfer pricing activities in FDI enterprises can be the base for other researches in approaching transfer pricing and transfer pricing abuse, under the context of complicated transfer pricing activities of FDI enterprises in this open economy. Having generalized the introduction, background, and significance of the study, the paper is structured with six sections. The next section reviews related literature in relation to the research question to be addressed. Section 3 describes the research methodology

used for answering the research question. Section 4 discusses the empirical analysis and section 5 presents discussion and empirical results. Finally, section 6 presents the main conclusions and recommendation for research in the future.

## 2. Literature Review

In terms of tax authorities' capacity, Duong (2018) concludes that there is a need to train and improve the skills of tax authorities to prevent FDI enterprises from applying transfer pricing manipulation. Duong (2018) finds out the USA has strengthened the tax authorities to deal with transfer pricing abuse. Along with enhancing legal regulations, in 2009, tax authorities of the USA enrolled 1,200 employees and in 2010, more than 800 employees to check and supervise transfer price. Transfer pricing inspectorate is also implemented in five main business lines of the USA: information communications, technology, and telecommunication, retail sales, foods, pharmacy and health care industry. Thang (2015) suggests that host countries need a national council on transfer pricing management to prevent transfer pricing activities. Deloitte (2015) in their survey – quantitative interviews with decision makers of transfer pricing of 251 multinational companies has found out that aggressiveness of the tax authorities is among top effects on the approach of transfer pricing of enterprises. In 2011, the Task Force on Tax and Development of OECD started a program to support developing countries to implement or enhance their transfer pricing rules. The program also recognized significant impact in all countries of implementation including the implementation of transfer pricing regulations suitable with international standards, setting up specialist units to carry out transfer pricing work and increasing revenues from transfer pricing audits. The program also supported on organizational changes in the tax authorities and policy issues. Similarly, in Kenya, the tax authorities implemented a significant training program for the staff on transfer pricing issues, which is resulted in more efficient work by the Kenyan Revenue Authority double the revenue collection from transfer pricing audits of 52 million US dollars in 2012 to 107 million US dollars in 2014. The program informs that through the capacity development programs, several countries are hiring experts under the Initiative of *Tax Inspectors Without Borders (TIWB)* to future consolidate the impact of the program. For instance, Ghana has deployed the TIWB of transfer pricing specialists from the tax authorities of the Netherlands to enhance their knowledge, experience as well as abilities in the field of transfer pricing. OECD informed that they are working with the joint UNDP/OECD TIWB Secretariat to send TIWB to developing countries.

In Vietnam, before establishing the Transfer Pricing Division pilot in the four Tax Department of Ho Chi Minh city, Ha Noi, Dong Nai and Binh Duong province, the General Department of Taxation is divided into sections at the national central and local levels. As at the national central level, a specific section would be in charge of the administration of big enterprises. TP audits at that time were a part of general tax audits, which were carried out by the Inspectorate Sections. In 2007, Vietnam started special TP audits. Due to lack of expertise and resources, about five cases were conducted annually, and they were often under the form of general tax audits. Specific TP audit procedure was not set up back to that time, and no specific TP auditors were in charge of this procedure. So when the Program worked closely with the World Bank Group and the European Union, Vietnamese tax authorities have significantly improved their capacities to enforce the transfer pricing regulations. OCED (2016) reported the increase in transfer pricing case audits carried out by the tax authorities from only 1 audit case in 2012 to 40 cases in 2013, which brought about revenue collection of 110 million US dollars by the end of 2013. The number in 2014 is also an impressive one with over 100 audits resulting in transfer pricing adjustments of 40 million US dollars. As a result, enterprises seem to be more careful in carrying out their transfer pricing activities. In another aspect, according to OECD (2016), Vietnamese tax authority capacity to carry out TP audits depends on their experience of TP regulations. To have tax reforms, Vietnam depends on the infrastructure currently in the country. There is a need to enhance the training facilities for tax officials, to improve system/information/database, and to upgrade the cooperation between tax administrations. The program found out that internal capacity building in Vietnam still lacks a comprehensive training system and facilities. Even Vietnam has support from the Asian Development Bank, Malaysia Tax Academy, and

Japanese National Tax Agency; the training was often carried out to normal tax officials, not those TP tax officials.

**Table 1**  
Empirical Review Summary

Author	Methods	Key Findings
PwC (2015)	Quantitative research	Only one-fifth of the respondents have had a positive experience with the Indian TP audit procedure.
Thang (2015)	Quantitative method Case study method	Host countries need Transfer Pricing Law and also need a national council on transfer pricing management to prevent transfer pricing activities
Deloitte (2016)	Qualitative method Quantitative method	Three of the top criteria affecting TP activities of enterprises: - The regulations of OECD on BEPS or the way the authorities respond to changes. - Aggressiveness of tax authorities - Changes demanded by audits
OECD (2016)	Program	Enhancing the capacity of tax authorities will help improve transfer pricing audit, increase tax revenue, then make enterprises more compliant to TP regulations when carrying out TP activities. There is a need to improve the tax authority capacity in Vietnam.
Duong (2018)	Qualitative research	There is a need to train and improve the skill of tax authorities to prevent FDI enterprises from apply transfer pricing abuse.

### 3. Research Methodology

#### 3.1. Selection of study area

The research is carried out in 4 provinces/cities of Vietnam, namely Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong. The Tax Departments of these localities have established the Transfer Pricing Division from the beginning of 2016 upon the request of the General Department of Taxation of Vietnam.

#### 3.2. Population, sample and data collection

According to Sekaran and Bougie (2013), the population indicates the whole group of people, events or things of interest that the researchers wish to study. Yet the population of this research refers to the FDI enterprises locating in the above-mentioned localities. Expected respondents of these enterprises will be the people in charge of finance/accounting/transfer pricing at the enterprises. By the end of 2017, Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong have attracted 4,500; 7,333; 1,472 and 3,305 FDI enterprises, respectively, or the total of 16,610 FDI enterprises (General Statistics of Vietnam, 2018). To select sample for this population, probability sampling technique is selected to control sampling biases and systematic errors. In addition, systematic sampling was carried out because it was easy to conduct, with less cost and more convenient for the large population (Etikan & Bala, 2017). With this population, sample sizes for the pilot test and for the official survey were generated accordingly. The first sample size was decided for a pilot test of the survey, and the second one was chosen for an official survey. Upon the direction of Memon et al. (2017), the authors decided the sample size for this pilot test from 25 to 100 or 10% of the sample size of the official survey. Later on, the researchers chose the sample size of 377 respondents, the number suggested by Krejcie and Morgan (1970) in their table providing a generalized scientific guideline for sample size decision. However, in order to collect enough 377 respondents, 500 questionnaires were expected to be delivered, in case of any missing or unqualified, the remaining still qualified for data analysis.

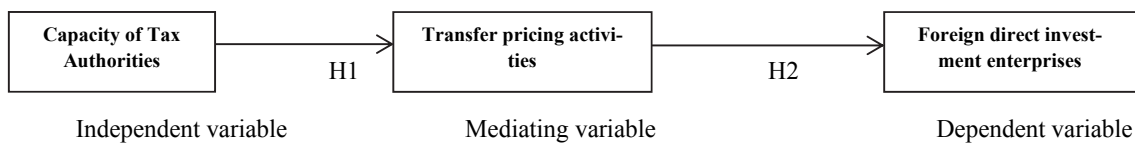
#### 3.3. Methodology

Choosing research philosophies for the study, positivism was acquired for this kind of research philosophy to explore the relationship between dependent and independent variable as the positivist sees the world to be operated by laws of cause and effect and that we can understand when we use a scientific approach to research, (Sekaran & Bougie, 2013). Positivism refers to quantifiable observations and later statistical analyses; in this research, the expected sample size included respondents, a large sample size

supported by positivism philosophy. For positivism philosophy, the authors then used deductive reasoning to carry out the research. Dudovskiy (2018) lists three advantages of deductive approach that perfectly go with the aim of this research: possible to explain causal relationships between concepts and variables, possible to measure with quantitative and possible to generalize research findings to a certain extent. Wilson (2010) states that a deductive approach refers to generating a hypothesis (or hypotheses) from the existing theory, and later developing a research strategy to test the hypothesis. From the literature review, the study is developed with the 2 Hypotheses:

- Hypothesis one (H1): There is a relationship between the Capacity of Tax Authorities and FDI enterprises in the four provinces/cities of Ha Noi, Ho Chi Minh, Dong Nai and Binh Duong of Vietnam.
- Hypothesis two (H2): There is a mediation relationship between transfer pricing activities and FDI enterprises in these localities.

The hypotheses are generated with the independent variable of “capacity of tax authorities”, mediating variable here is “transfer pricing activities” and the dependent variable is “FDI enterprises” to be presented in Fig. 1 below:



**Fig. 1.** Hypotheses

With these hypotheses, the researchers decided to use a survey to do the study and analysis, which collects information from the people or about the people to get their knowledge, their attitudes, and their behaviors (Fink, 2003). It is often used in exploratory and descriptive research to collect data about people, events or situations; for example, customer satisfaction, consumer decision making, job satisfaction, and so on. Here the research is to analyze the decision making of FDI enterprises on transfer pricing activities. Survey also matches with deductive approach (Saunders et al., 2016) for this research to be carried out. For the survey, questionnaires were implemented due to their competence (Bryman, 2004) and popularity in varieties of studies referring to attitude, values, intentions or personalities (Moorman & Podsakoff, 1992). Research method of this study has been clearly examined and chosen of quantitative research method. According to Babbie (2010), Muijs (2010), quantitative method is used to focus on objective measurements and the analysis of statistical data that is collected through questionnaires, surveys, or by manipulating pre-existing statistical data with computational techniques. This method research emphasizes collecting numerical data and generalizing it across groups of people or to explain a particular phenomenon. The method is also appropriate in this study because it is straightforward to what and how question type and concerns about measurements of each variable as well as evaluating the causal effects among variables (Biggam, 2018). The study uses a cross-sectional as this kind of study is clear and allows the evaluation of a large number of variables (Thelle & Laake, 2015). For primary and secondary data collection - a significant role in academic studies to support data analysis in order to obtain the key findings of the research, secondary data is gathered from published statistics and official reports in Vietnam and around the world relating to the issue. For primary data collection, the researchers aimed at collecting the data from questionnaires with the respondents – a useful data collection instrument for quantitative research (Walliman, 2017). A closed format questionnaire is generated to be clear and candid for the respondents (Dillman et al., 2014), which is perfectly suitable for quantitative research method, helping the researcher to control the quality of collected data to gain the key findings of the study (Saunders et al., 2016). To make it easier for the receivers to respond, each item of the questionnaire is evaluated with five scales of Likert scale (Wadgave & Khairnar, 2016). Email survey with this self-administered questionnaire will be applied because all the FDI enterprises in Vietnam use Internet. The capacity of tax authorities is taken with 4 measurement items. Transfer pricing activities is measured

with 3 items and FDI enterprise is measured with 3 items. Some of these research questions are adapted from Deloitte (2016) and some are self-deployed. The questionnaire is presented in Table 2 as follows:

**Table 2**  
Questionnaires

Capacity of Tax Authorities (CTA)					
Tax Authorities have good knowledge of TP to work with the company.	1	2	3	4	5
Tax Authorities have enough facilities to carry out TP audits effectively	1	2	3	4	5
Tax Authorities' aggressiveness will make the company follow the TP regulations	1	2	3	4	5
Transfer Pricing Inspectorate Division will make the companies to follow the TP regulations.	1	2	3	4	5
Transfer Pricing activities					
Transfer pricing activities are carried out to minimize total cost in business	1	2	3	4	5
Transfer pricing activities among related parties can minimize the risk in business	1	2	3	4	5
Transfer pricing activities leading to transfer pricing abuse due to the external reason of market regulations.	1	2	3	4	5
FDI enterprises					
Affiliated transactions with associated partners help the company to operate safer	1	2	3	4	5
Country-by-country reporting requirements can have effects on the way FDI carry out their TP activities	1	2	3	4	5
As foreign direct investment, the enterprise finds it hard to adapt with changing transfer pricing conditions	1	2	3	4	5

The pilot test is then carried out with the participation of a suitable number of volunteers to clarify a couple of issues: to validate the items scale and to get feedbacks on questionnaires' content for further amendment if any. After the pilot study, an official survey will be implemented. Survey Monkey – a web-based tool of email survey is used to collect respondents for primary data. This is a user-friendly tool with online features supporting logical order and helping respondents easily to fulfill the questionnaire with detailed guidance from the researcher. So far the research has adapted deductive reasoning of quantitative data collection which focused on finding casual relationships. The study will be endeavored in the analysis of numerical and statistical data (Saunders et al., 2009), using the Statistical Package for the Social Sciences Version 20 (SPSS) system of statistical analysis with AMOS. Yet according to Jatnika (2015) and Lee and Lings (2008), SPSS is highly efficient software for statistical analysis in social science papers and it is also accepted by the researchers in different areas such as government, healthcare, education, etc. At the same time, AMOS is a supplement to SPSS software, especially used for Structural Equation Modeling (SEM) for causal modeling. With AMOS, the author can graphically draw the models and fast performs the computations for SEM to get the findings. Provided that these research methodology components are perfectly carried out while doing the research, the author acknowledges some limitations of the research. First of all, the research findings will be based on the accepted sample size (suggested by previous researchers), but the findings may be correct only for the sample, not for the whole target population. The second limitation is that when choosing quantitative research, the author may not get in-depth understandings of the social phenomenon compared to the qualitative research methodology. Another limitation concerns while the study uses a cross-sectional analysis that will not be able to examine the changes over time, especially the changes of transfer pricing activities before the Transfer Pricing Division being established in these localities. After all of this selection, chosen and implementation, ethical consideration is always the concern of the researcher when carrying out the survey to get respondents for the questionnaires (Saunders et al., 2016). The anonymity survey is implemented with the guaranty that no personal information of the volunteers, the respondents, and the companies will be disclosed. The research own opinion is confirmed to not affect the answers of persons joining the pilot test and official survey. The author also confirms no interfering to the data collection and analysis, provided any results come after that. Full references of previous studies are cited with the academic rules, no plagiarism faults are committed. The author also assures that the information collected is strongly protected and used for academic purposes only.

#### 4. Empirical Analysis

A total of 150 respondents have returned back the questionnaires. The authors then used SPSS software to conduct the descriptive statistics, reliability test, and exploratory factor analysis. AMOS software was also applied to evaluate the research model and hypothesis testing.

#### 4.1. Categories of the enterprises

The categories of enterprises with general information are presented in Table 3. These include the annual average turnover, average profit rate, controlled transactions with parent company/ associated partners and number of these transactions (if available).

**Table 3**  
Categories of FDI enterprises

Variable	Characteristics	Frequency	Percent
Annual average turnover	More than 200 billion VN dong	42	28
	100 – 200 billion VN dong	67	44.7
	50 – less than 100 billion VN dong	36	24
	Less than 50 billion VN dong	5	3.3
	Total	150	100
Average profit rate	> 0	37	24.7
	=0	50	33.3
	< 0	63	42
	Total	150	100
Controlled transactions with parent company/ associated partners	Yes	121	80.7
	No	29	19.3
	Total	150	100
Number of controlled transactions	No transaction	29	19.3
	1 - 3 transactions	4	2.7
	> 3 transactions	117	78
	Total	150	100

Currently, the annual average turnover of the FDI enterprises is categorized into > 200 billion VN dong; 100 – 200 billion VN dong; 50 – < 100 billion VN dong; and < 50 billion VN dong. The Survey shows that most of the enterprises have the annual average turnover of 100 to 200 billion Vietnam dong (67 respondents, 44.7%), followed by more than 200 billion VN dong (42 respondents, 28%). The number of enterprises with a turnover of 50 to 100 billion VN dong is 36 respondents, 24% and only 5 respondents (3.3%) are from enterprises with turnover smaller than 50 billion VN dong per year. Furthermore, the average profit rate of these enterprises mostly profit lost with 63 respondents, 42% have the figure of less than Zero. 33.3% of respondents (50 enterprises) said they have no profit (profit rate of 0) and the remaining of 37 respondents (24.7%) confirmed they have profit. Getting to know whether the enterprises have controlled transactions with their parent company/associated partners or not, only 29 respondents (19.3%) pointed out that they have no associated transactions. Meanwhile, 121 respondents (80.7%) said they had controlled transactions. Therefore, 29 respondents (19.3%) said they had no affiliated transactions. Many of the respondents said they had more than 3 transactions every year (117 respondents, 78%), while only 4 respondents (2.7%) confirmed they had only 1 – 3 controlled transactions per year.

#### 4.2. Descriptive statistics

Descriptive statistics show the mean value of items in the questionnaire. The result gained from the survey is presented in Table 4:

**Table 4**  
Descriptive statistics

Item	Minimum	Maximum	Mean	Std. Deviation	N
CTA1	1	5	3.28	.646	150
CTA2	1	4	2.70	.565	150
CTA3	1	5	3.51	.784	150
CTA4	2	5	2.95	.722	150
TPA1	1	5	3.26	.923	150
TPA2	1	5	3.63	.832	150
TPA3	1	5	3.33	.886	150
FDIE1	1	5	3.83	.817	150
FDIE2	1	5	3.86	.751	150
FDIE3	1	5	4.03	.723	150

In terms of the capacity of the Tax Authorities, there are 4 items and they are coded into from CTA1 to CTA4. Mean values of CTA1, CTA2, CTA3, and CTA4 are 3.28, 2.70, 3.51 and 2.95 respectively. It is emphasized that only CTA3 has mean value more than 3.5 and other items have mean values less than 3.5 and higher than 2.5. So it is concluded that the respondents agree with the statement that the aggressiveness of Tax Authorities will make the company follow the transfer pricing regulations. Otherwise, they are neither agreeing nor disagreeing with other statements on the capacity of the tax authorities. In terms of transfer pricing activities of these enterprises, they are coded into TPA1, TPA2, and TPA3. The mean values of TPA1, TPA2, and TPA3 are 3.26, 3.63 and 3.33. It is emphasized that only TPA2 has mean value more than 3.5 and other items have mean value less than 3.5 and higher than 2.5. So it is concluded that the respondents agree with the statement that the transfer pricing activities among the related parties can minimize the risk in business. At the same time, they are neither agreeing nor disagreeing with other statements on the capacity of the tax authorities. In term of Foreign Direct Investment enterprises, they are coded into FDIE1, FDIE2, and FDIE3. The mean values of FDIE1, FDIE2, and FDIE3 are 3.83, 3.86 and 4.03, respectively. These all confirm that the respondents agree with all the statement of this variable. The respondents agree that affiliated transactions with associated partners help the company operate safer, they also find that country-by-country reporting requirements can have effects on the way FDI carry out their TP activities and finally as being FDI, the enterprises find it hard to adapt with changing transfer pricing conditions.

#### 4.3. Reliability test analysis

Reliability test is carried out to check the internal consistency among items of one factor. Cronbach's alpha and two indicators of Corrected item-total correlation and Cronbach's alpha if item deleted is required to calculate. According to Nunnally (1978), the recommended 0.70 minimum value stated and corrected item-total correlation is at least 0.30. In addition, when deleting one item, the new Cronbach's alpha must be smaller than the original value before this item is deleted. The result for this survey is presented in Table 5. Cronbach's alpha values for the capacity of tax authorities, transfer pricing activities and foreign direct investment enterprises are calculated at 0.733, 0.854 and 0.707, respectively and all the figures are higher than 0.70. The second step for the reliability test is to verify the corrected item-total correlation and the final results show that all items have the values of more than 0.30. Finally, when one item is deleted, the new Cronbach alpha is lower than the original one. Therefore, it can be concluded that internal consistency among items of a factor is satisfied. Furthermore, none of the input is deleted because the reliability test is accepted. The authors then continue to EFA analysis to get the result of the survey.

**Table 5**  
Reliability test analysis

Factor	Code	Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Capacity of Tax Authorities	CTA1	0.733	.488	.692
	CTA2		.500	.691
	CTA3		.481	.707
	CTA4		.654	.590
Transfer Pricing Activities	TPA1	0.854	.812	.708
	TPA2		.549	.845
	TPA3		.839	.682
Foreign Direct Investment Enterprises	FDIE1	0.707	.489	.667
	FDIE2		.626	.489
	FDIE3		.470	.681

#### 4.4. EFA Analysis

EFA Analysis is required in calculating KMO and Bartlett's test. The components of initial eigenvalues of more than 1.0 are accepted and the selected components must have cumulative % variance of more than 50%. Factor loading of each item is expected to be higher than 0.5 and Varimax is used as a rotation technique. The EFA analysis is conducted and the result is presented in Table 6 as follows:



**Table 6**  
EFA Analysis result after Varimax rotation

KMO = 0.744; Bartlett's test = 631.655, p-value < 0.001				
Component	1	2	3	Communalities
Initial eigenvalues	3.727	1.738	1.262	
% of variance	37.274	17.381	12.617	
CTA1		0.695		0.542
CTA2		0.731		0.570
CTA3		0.694		0.574
CTA4		0.794		0.707
TPA1	0.920			0.903
TPA2	0.614			0.600
TPA3	0.905			0.910
FDIE1			0.683	0.552
FDIE2			0.811	0.723
FDIE3			0.785	0.649

The obtained findings from KMO and Bartlett's test confirm that EFA is able to use for the data set of 150 respondents. KMO value is 0.744 which is higher than 0.5. In the meantime, Bartlett's test value is estimated at 631.655 and p-value is less than 0.05. The result means that KMO and Bartlett's test satisfy the pre-test of EFA and the data analysis technique is suitable. There are three components which are extracted with initial eigenvalues of more than 1.0 and the cumulative % variance explained by these components is higher than 50%. Component 1 has an initial eigenvalue of 3.727 and it can be used to explain for 37.274% of variance. Component 1 includes all items of transfer pricing activities. Component 2 has an initial eigenvalue of 1.738 and it can be used to explain for 17.381% of variance. Component 2 includes all items of the capacity of tax authorities. Component 3 has an initial eigenvalue of 1.262 and it can be used to explain for 12.617% of variance. Component 3 includes all items of foreign direct investment enterprises. The detail description of each component is explained further as follows:

- Component 1 includes all items of transfer pricing activities and factor loading values calculated for TPA1, TPA2 and TPA3 are 0.920, 0.614 and 0.905 respectively. All factor loading values are higher than 0.5.
- Component 2 includes all items of the capacity of tax authorities and factor loading values calculated for CTA1, CTA2, CTA3 and CTA4 are 0.695, 0.731, 0.694 and 0.794, respectively. All factor loading values are higher than 0.5.
- Component 3 includes all items of foreign direct investment analysis and factor loading values calculated for FDIE1, FDIE2 and FDIE3 are 0.683, 0.811 and 0.785, respectively. All factor loading values are higher than 0.5.

#### 4.5. Evaluation of research model

AMOS is used to evaluate research model. The output of the model fit is presented in Table 7 below:

**Table 7**  
Research Model

Indicator	Benchmark	Result
Chi-square/df	<= 5	1.789
CFI	> 0.9	0.996
RMSEA	<= 0.08	0.073

It is significant that Chi-square/df (CMIN/DF) is 1.789 and it is lower than 5. CFI value is calculated at 0.996 and RMSEA is 0.073, all qualified the benchmark. It can be concluded that the model is fit with the dataset. Therefore, hypothesis testing will be analyzed in the next section.

#### 4.6. Hypothesis testing

The result of hypothesis testing is presented in Table 8 below:

**Table 8**  
Hypothesis testing

	Estimate	S.E.	C.R.	P-value	Hypothesis	Result
TPA $\leftarrow$ CTA	1.105	0.235	4.707	***	H1	Accepted
FDIE $\leftarrow$ TPA	0.373	0.067	5.562	***	H2	Accepted

H<sub>1</sub> indicates that the capacity of tax authorities affects positively and significantly on transfer pricing activities. The coefficient is estimated at 1.105, higher than 0.2. The p-value is less than 0.001, which is less than 0.05. Therefore H<sub>1</sub> is accepted. H<sub>2</sub> indicates that transfer pricing activities have positively and significantly on foreign direct investment enterprises. The coefficient is estimated at 0.373, which is greater than 0.2. The p-value is less than 0.001, which is less than 0.05. Therefore H<sub>2</sub> is accepted.

## 5. Discussion and empirical results

The obtained empirical results are similar to previous studies and programs. In this study, the capacity of tax authorities is found to have a positive and significant relationship with transfer pricing activities in foreign direct investment enterprises and it is confirmed by OECD (2016). The program of OECD (2016) confirmed that when the Program worked closely with the World Bank Group and the European Union to carry out training for the tax authorities, these officials then have significant improvement in their capacities to enforce the transfer pricing regulations, increase transfer pricing audits cases and therefore affect the transfer pricing activities of these enterprises. Fig. 2 below illustrates the relationship between factors and items after SEM is conducted:

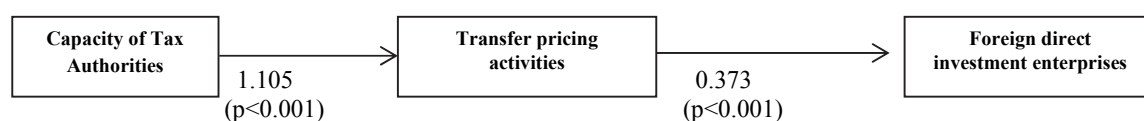


Fig. 2. Model estimation result

## 6. Conclusions and Recommendations

In recent years, the rising concern over transfer pricing activities of FDI enterprises in Vietnam has drawn out the intention of the government, especially among those financial/tax officials. Dating back 2010, when the Ministry of Finance passed the Circular number 66/2010/TT-BTC to direct the setting of the market price in transactions among affiliated parties until the Decree no. 20/2017/ND-CP of the Government dated 24 Feb 2017, effectively from the 1<sup>st</sup> of May 2017, on providing tax administration applicable to enterprises engaging in controlled transactions, the Government of Vietnam has shown great concerns for this issue. Significantly, in 2016, the General Department of Taxation of Vietnam has established the Transfer Pricing Division in the Tax Department of Ha Noi, Ho Chi Minh, Dong Nai and Binh Duong province – the provinces/cities that have a large number of FDI enterprises presenting in the area. Therefore, to contribute to the understanding of transfer pricing activities in Vietnam, the author carries out research to recognize the relationship between the improvement of the capacity of tax authorities and the transfer pricing activities in FDI enterprises in these localities. In the literature review section of this study, how the capacity of tax authorities affect the activities in transfer pricing of FDI enterprises have been examined. A number of findings have shown that with better transfer pricing auditing, with more transfer pricing penalties collection, the enterprises seem to comply more with the transfer pricing regulation. In the USA, the Government employs more and more officials to specifically deal with transfer pricing audits. Some programs of OECD show that Vietnam needs to improve the capacity of tax authorities to better deal with transfer pricing in Vietnam. A part of it is improving the facilities for training transfer pricing issues and developing international cooperation in transfer pricing activities. The methodology is chosen for the study with clear reasoning to make it the most appropriate for the research. Positivism research philosophy, with deductive reasoning and quantitative research method has been applied. Primary data collection from self-administered closed format questionnaires has been deployed through the software of Survey Monkey. SPSS and AMOS were then deployed to analyze the data collection. Secondary data were gathered from published statistics and official reports. A data collection of

150 respondents in FDI enterprises in Ha Noi, Ho Chi Minh, Dong Nai, and Binh Duong province has been made. Empirical results have shown that the capacity of tax authorities had significant and positive impacts on transfer pricing activities of FDI enterprises in these selected localities. The authors have found acceptable internal consistency reliability of the research, model testing, EFA analysis and hypothesis testing accepted, therefore, further research on the relationship between the capacity of tax authorities and transfer pricing activities of FDI enterprises in Vietnam could be conducted with the official survey of 377 respondents as suggested in Methodology. With the above empirical analysis, the authors have recognized some limitations of the study as the findings may hold only for the sample, not for the whole population. Since the implementation of several projects in upgrading capacities in transfer pricing for tax officials especially was hosted by the Asian Development Bank, Malaysia Tax Academy and Japanese National Tax Agency, the study recommends to create specific tax officials in all tax departments of Vietnam, provide specific trainings for transfer pricing tax officials, together with upgrading facilities and database for the tax authorities to carry out transfer pricing audits in FDI enterprises to prevent the transfer pricing manipulation.

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